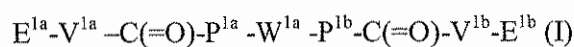


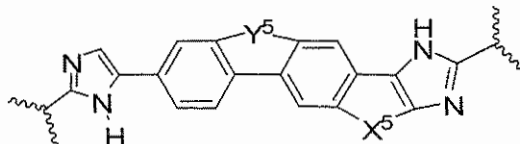
Claims

1. A compound of formula (I):



wherein

W^{1a} is



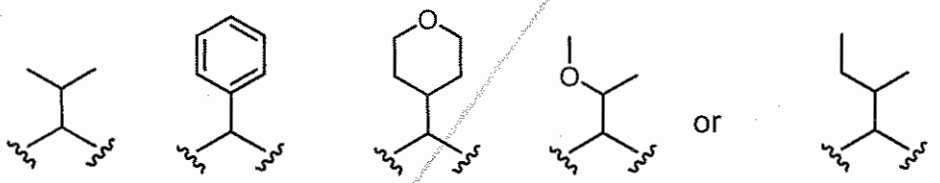
and W^{1a} is optionally substituted with one or more groups independently selected from halo, alkyl, haloalkyl, or cyano;

Y^5 is $-O-CH_2-$, or $-CH_2-O-$; X^5 is $-CH_2-CH_2-$ or $-CH=CH-$;

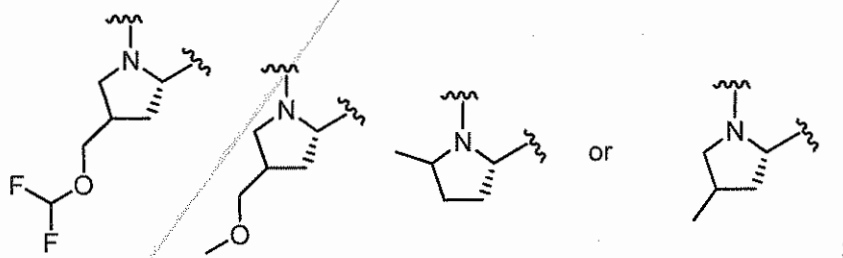
E^{1a} is $-N(H)(alkoxycarbonyl)$, $-N(H)(cycloalkylcarbonyl)$ or $-N(H)(cycloalkyloxycarbonyl)$; or $E^{1a}-V^{1a}$ taken together are R^{9a} ;

E^{1b} is $-N(H)(alkoxycarbonyl)$, $-N(H)(cycloalkylcarbonyl)$ or $-N(H)(cycloalkyloxycarbonyl)$; or $E^{1b}-V^{1b}$ taken together are R^{9b} ;

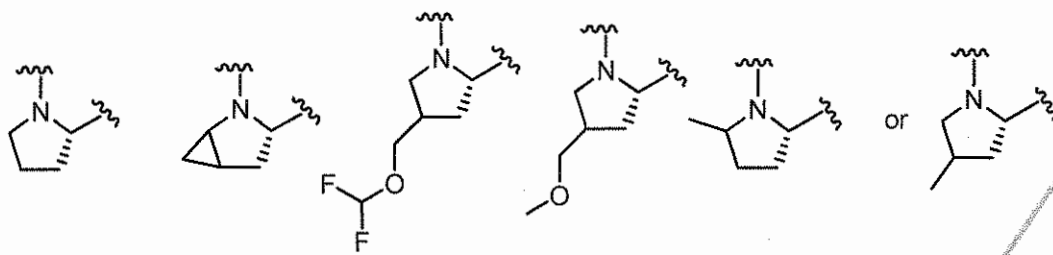
V^{1a} and V^{1b} are each independently selected from:



P^{1a} is selected from:

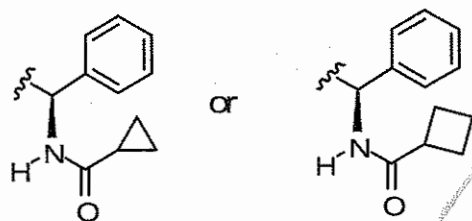


P^{1b} is selected from:



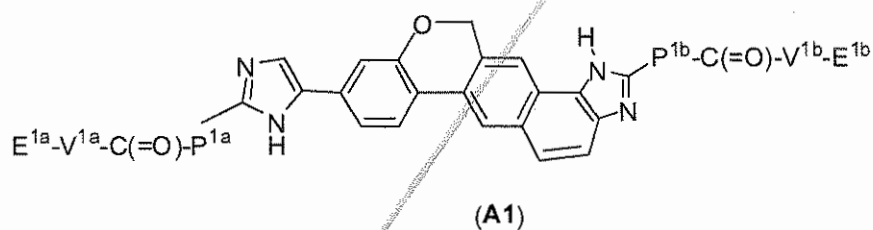
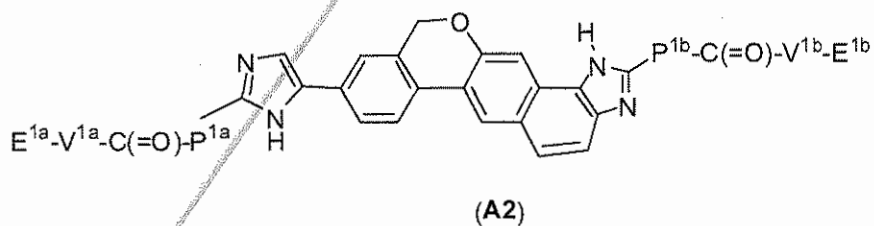
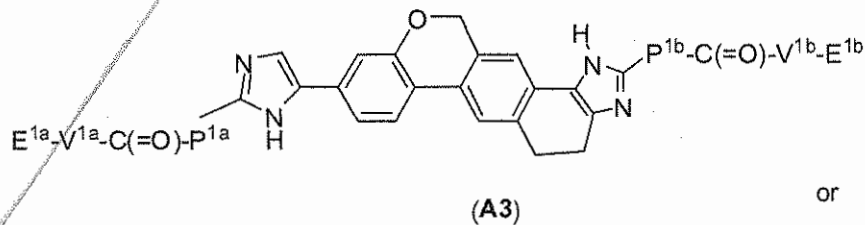
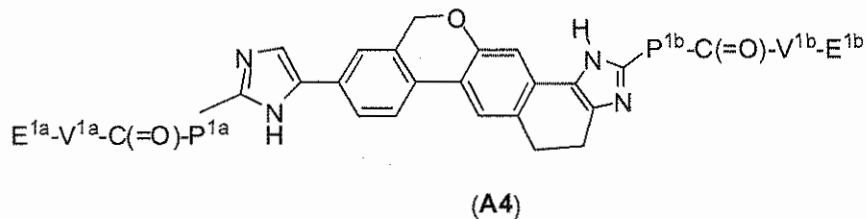
and

R^{9a} and R^{9b} are each independently:



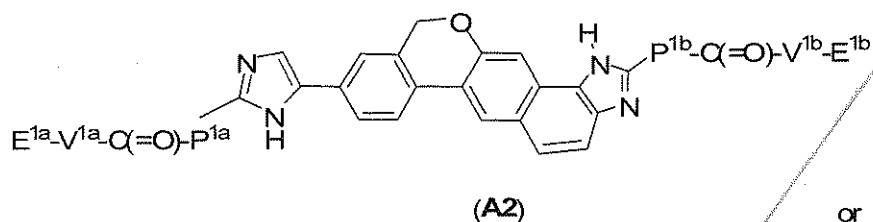
or a pharmaceutically acceptable salt or prodrug thereof.

2. The compound of claim 1 which has formula:

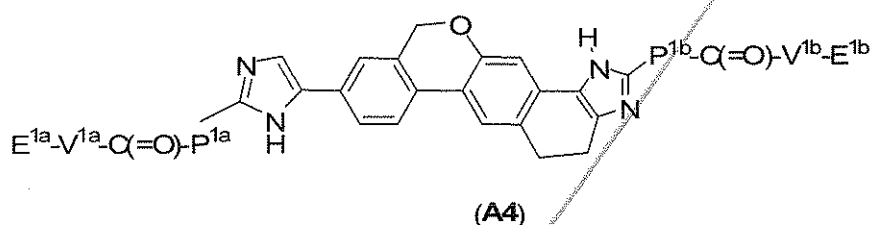


wherein the imidazole ring shown in formula A1, A2, A3, and A4 is optionally substituted with one or more groups independently selected from halo, haloalkyl, cyano, and alkyl;
or a pharmaceutically acceptable salt or prodrug thereof.

3. The compound of claim 1 which has formula:



or

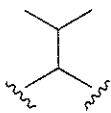


wherein the imidazole ring shown in formula A2 and A4 is optionally substituted with one or more groups independently selected from halo, haloalkyl, cyano, or alkyl;
or a pharmaceutically acceptable salt or prodrug thereof.

4. The compound of any one of claims 1-3 wherein at least one of E^{1a} and E^{1b} is -N(H)(alkoxycarbonyl).
5. The compound of any one of claims 1-3 wherein at least one of E^{1a} and E^{1b} is -N(H)C(=O)OMe.
6. The compound of any one of claims 1-3 wherein both of E^{1a} and E^{1b} are -N(H)C(=O)OMe.
7. The compound of any one of claims 1-3 wherein at least one of E^{1a} and E^{1b} is -N(H)(cycloalkylcarbonyl) or -N(H)(cycloalkyloxycarbonyl).
8. The compound of any one of claims 1-3 wherein at least one of E^{1a} and E^{1b} is cyclopropylcarbonylamino, cyclobutylcarbonylamino, cyclopropyloxycarbonylamino or cyclobutyloxycarbonylamino.

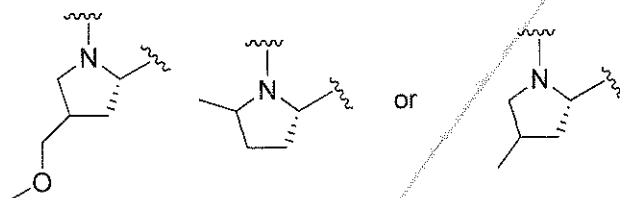
9. The compound of any one of claims 1-3 wherein E^{1a} and E^{1b} are each independently selected from cyclopropylcarbonylamino, cyclobutylcarbonylamino, cyclopropyloxycarbonylamino or methoxycarbonylamino.

10. The compound of any one of claims 1-9 wherein at least one of V^{1a} and V^{1b} is:

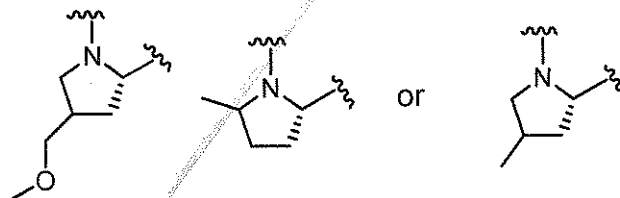


11. The compound of any one of claims 1-10 wherein E^{1a} - V^{1a} taken together are R^{9a} or wherein E^{1b} - V^{1b} taken together are R^{9b} .

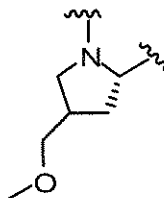
12. The compound of any one of claims 1-11 wherein at least one of P^{1a} and P^{1b} is selected from:



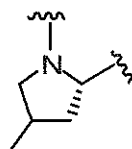
13. The compound of any one of claims 1-11 wherein P^{1a} and P^{1b} are each independently selected from:



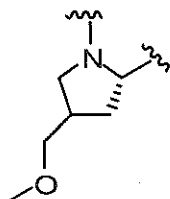
14. The compound of any one of claims 1-11 wherein one of P^{1a} and P^{1b} is:



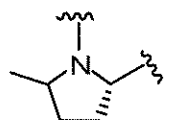
and the other of P^{1a} and P^{1b} is:



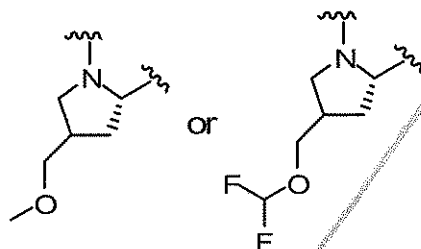
15. The compound of any one of claims 1-11 wherein one of P^{1a} and P^{1b} is:



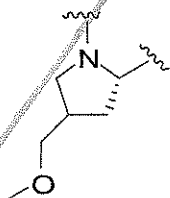
and the other of P^{1a} and P^{1b} is:



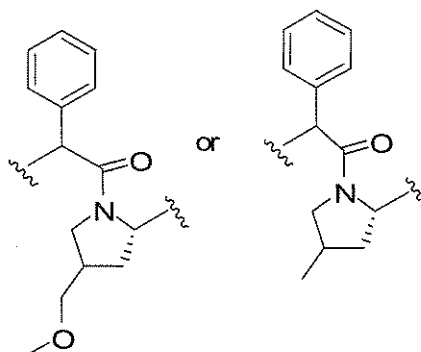
16. The compound of any one of claims 1-11 wherein at least one of P^{1a} and P^{1b} is:



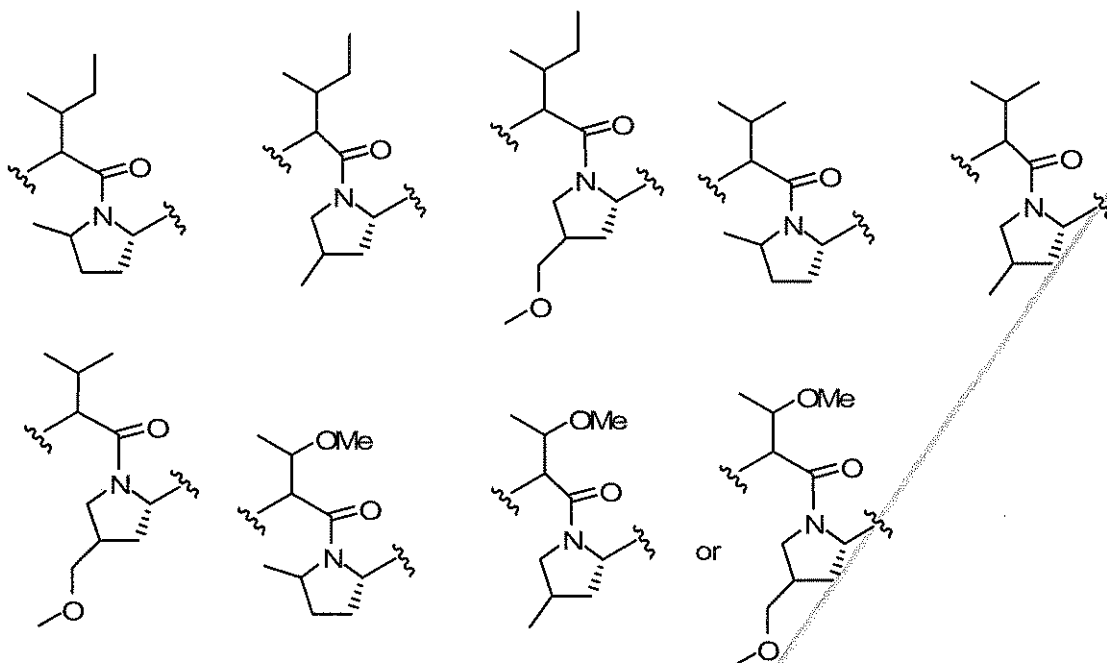
17. The compound of any one of claims 1-11 wherein at least one of P^{1a} and P^{1b} is:



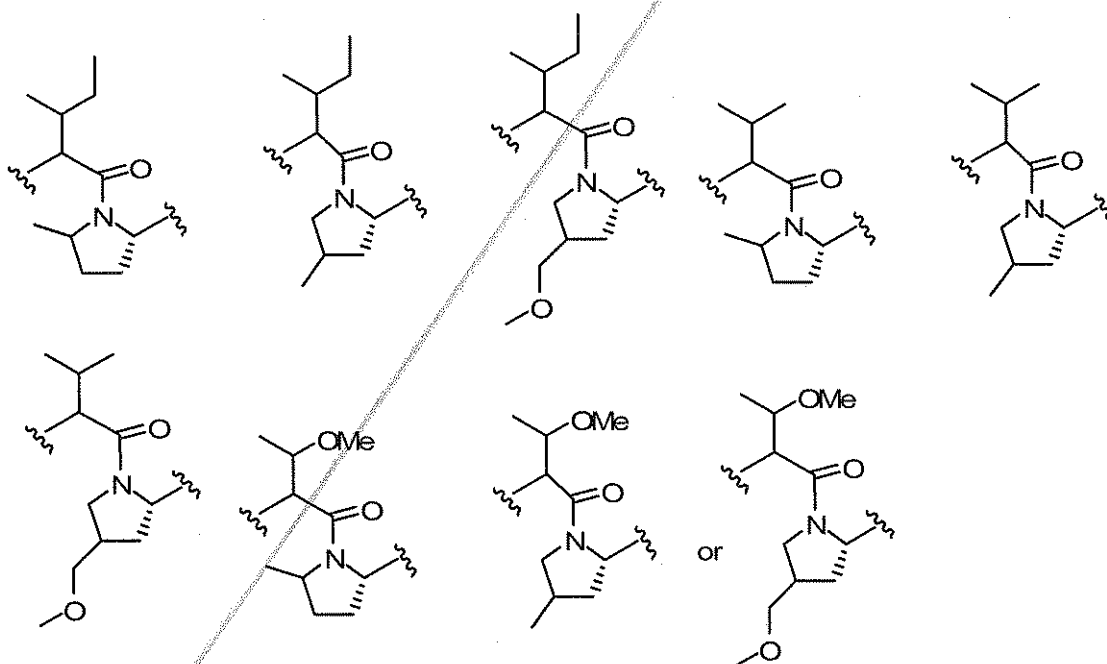
18. The compound of any one of claims 1-3 wherein at least one of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ is:



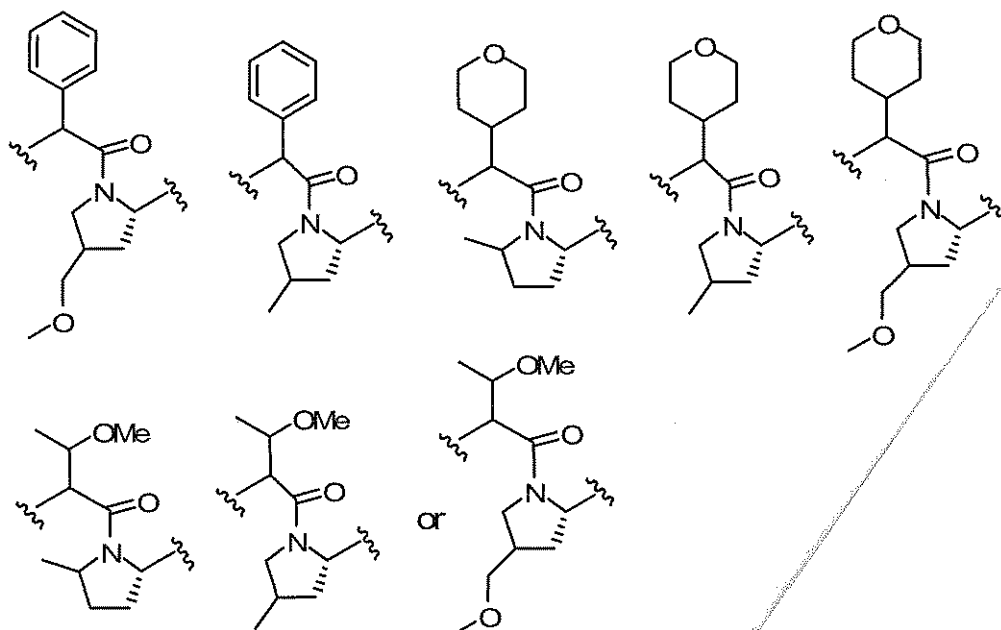
19. The compound of any one of claims 1-3 wherein at least one of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ is:



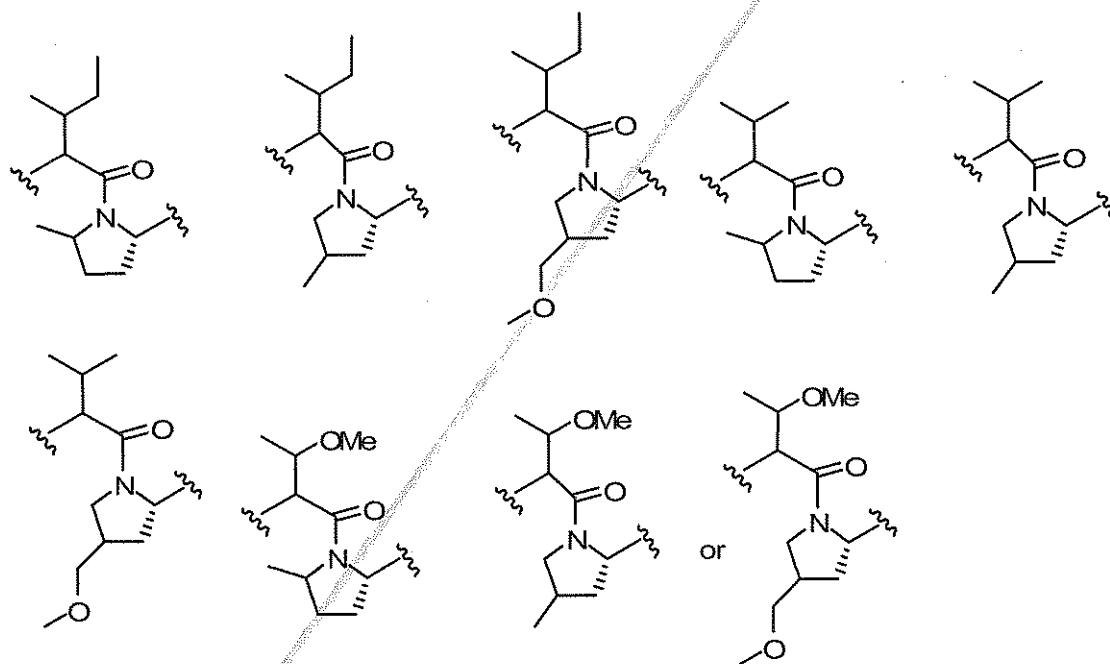
20. The compound of any one of claims 1-3 wherein both of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ are independently selected from:



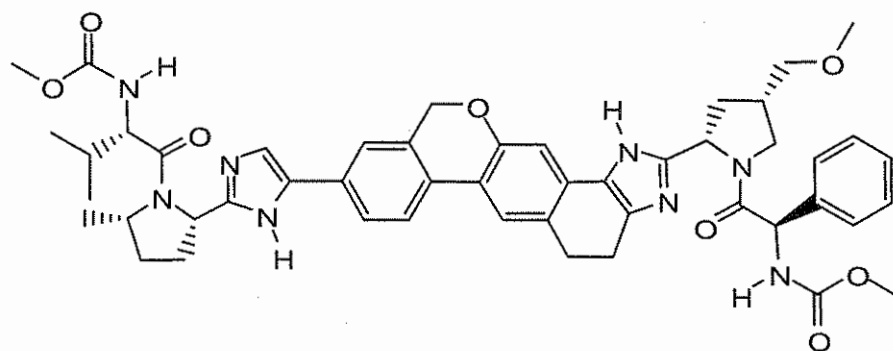
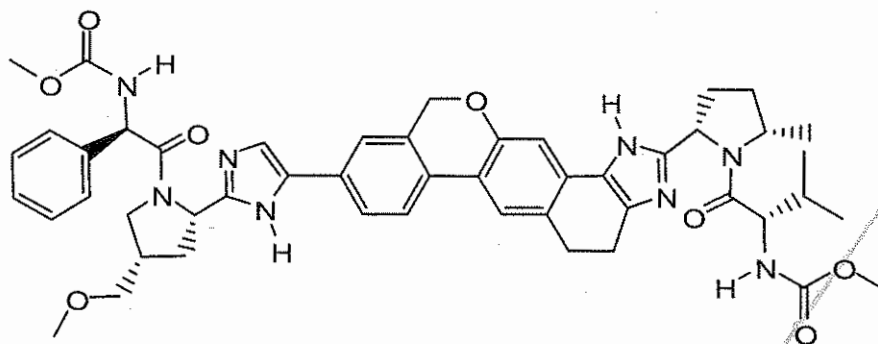
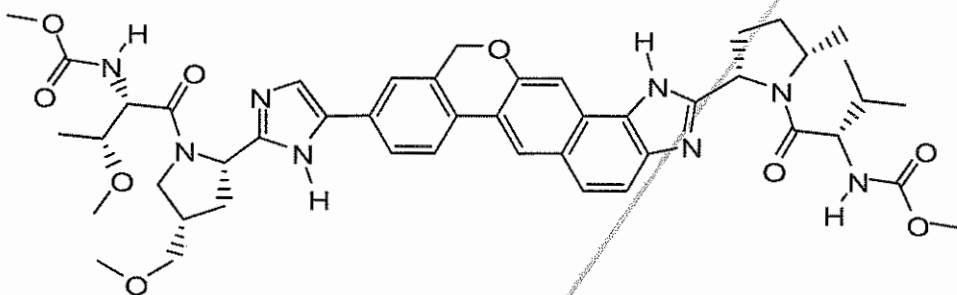
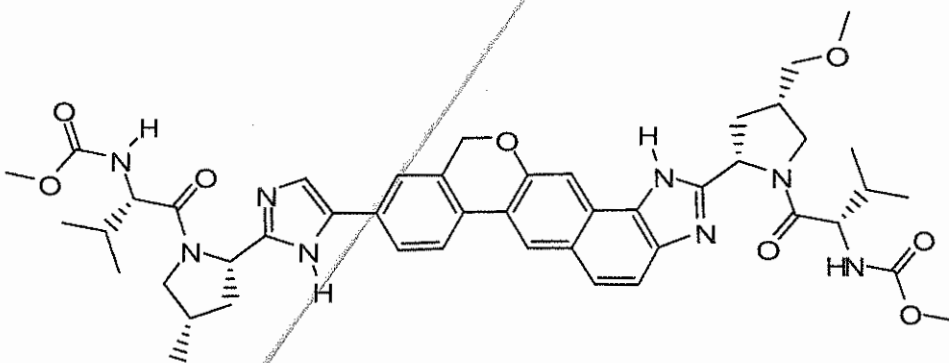
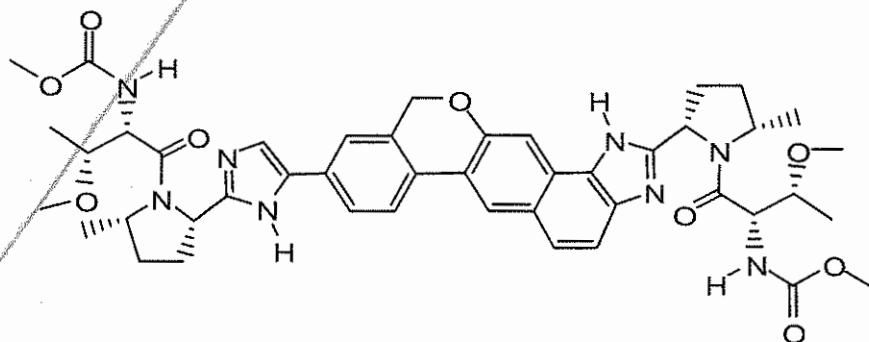
21. The compound of any one of claims 1-3 wherein one of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ is:

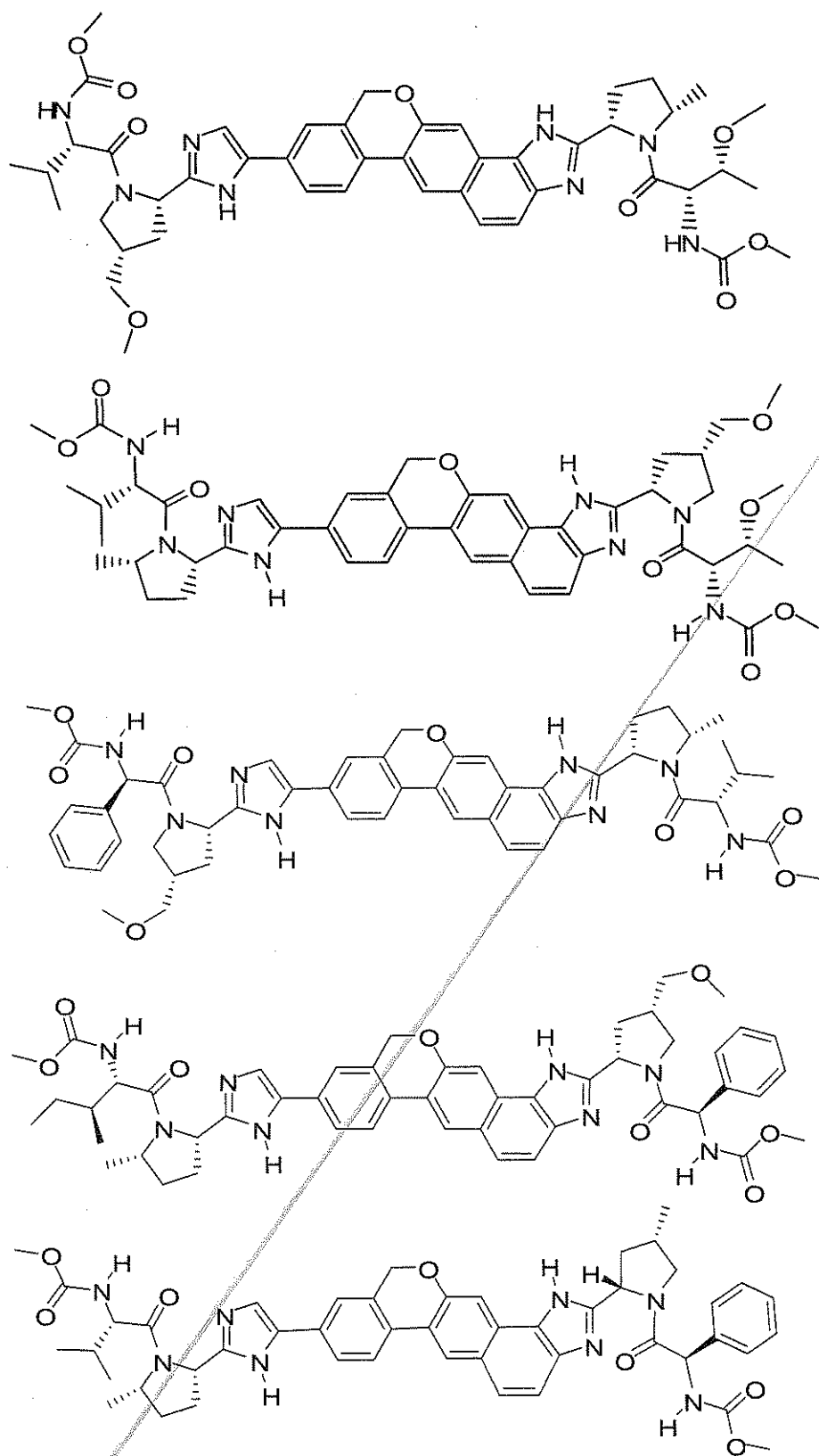


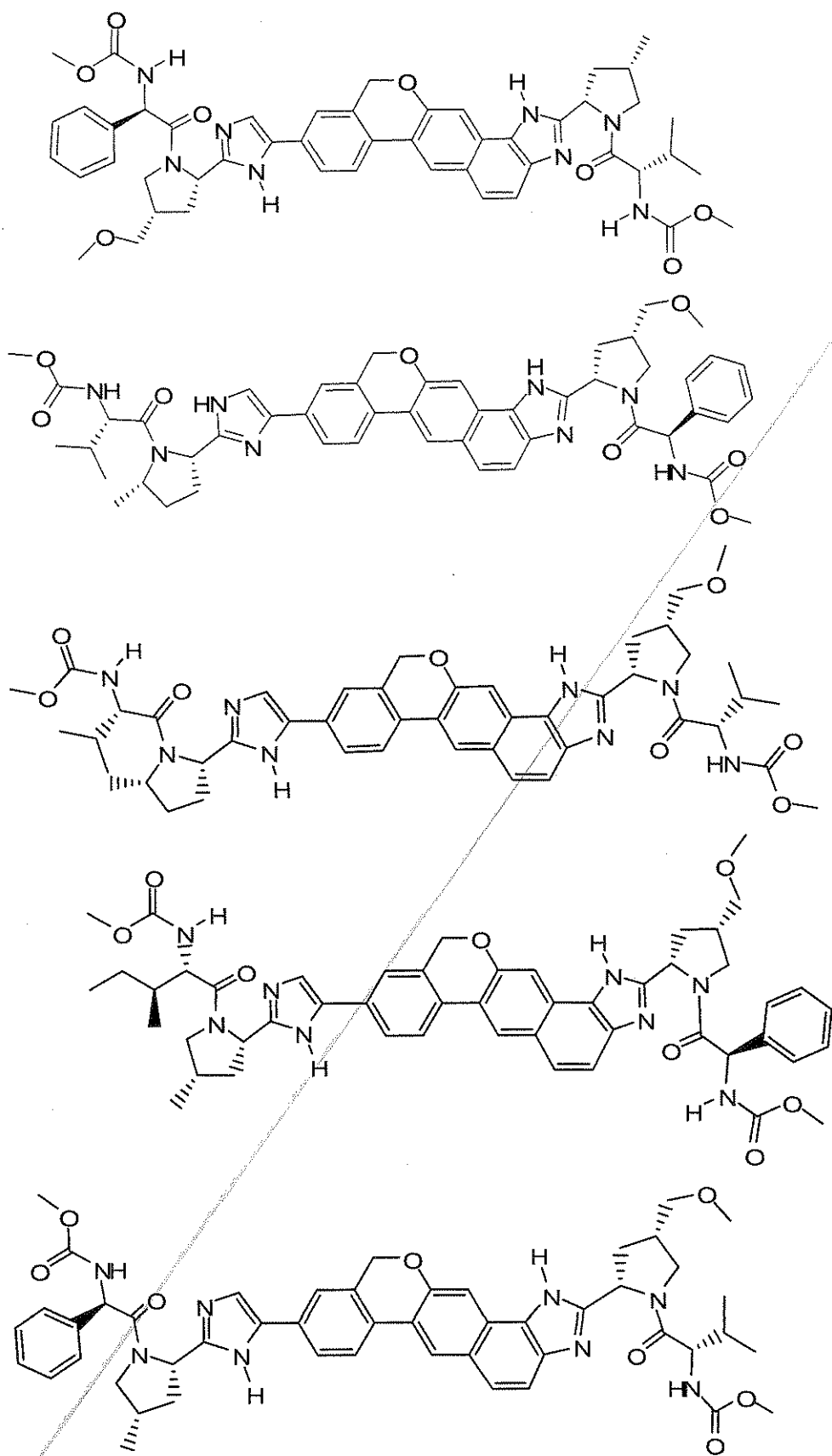
and the other of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ is:



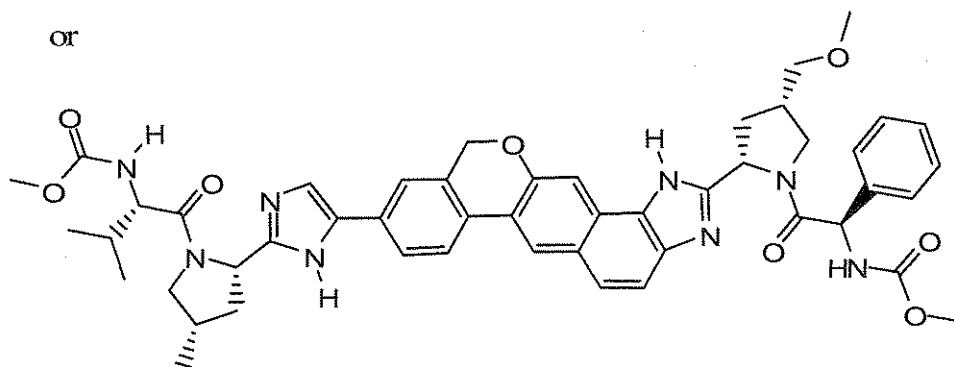
22. The compound of claim 1 which is a compound of formula:





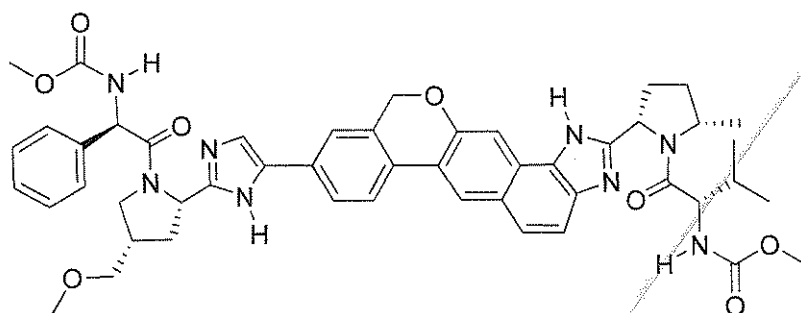


or



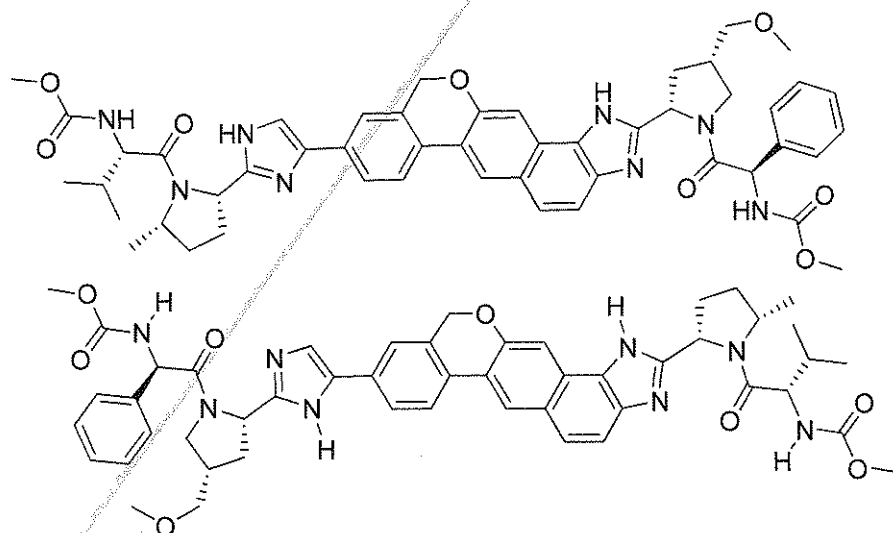
or a pharmaceutically acceptable salt or prodrug thereof.

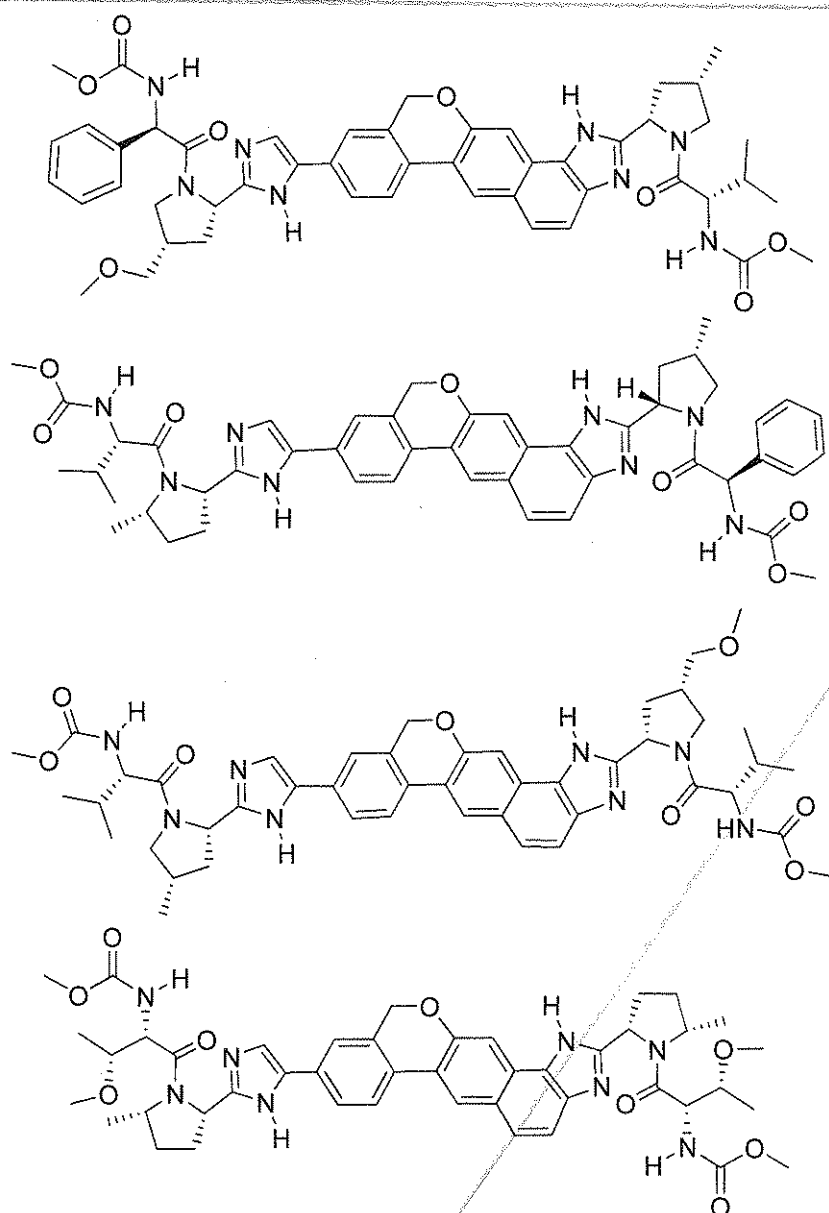
23. The compound of claim 1 which is a compound of formula:



or a pharmaceutically acceptable salt or prodrug thereof.

24. The compound of claim 1 which is a compound of formula:





or a pharmaceutically acceptable salt or prodrug thereof.

25. A pharmaceutical composition comprising the compound as described in any of claims 1-24 or a pharmaceutically acceptable salt, or prodrug thereof; and at least one pharmaceutically acceptable carrier.
26. The pharmaceutical composition according to claim 25 for use in treating disorders hepatitis C (HCV).
27. The pharmaceutical composition of claim 25, further comprising at least one additional therapeutic agent for treating HCV.

28. The pharmaceutical composition of claim 27, wherein said additional therapeutic agent is selected from ribavirin, an NS3 protease inhibitor, a nucleoside or nucleotide inhibitor of HCV NS5B polymerase, an alpha-glucosidase 1 inhibitor, a hepatoprotectant, a non-nucleoside inhibitor of HCV polymerase, or combinations thereof.

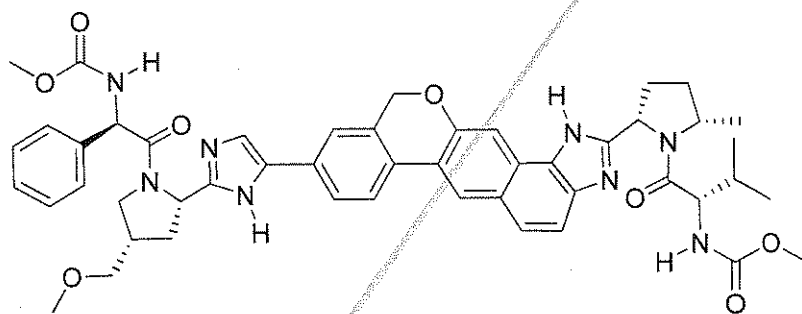
29. The pharmaceutical composition according to claim 25, further comprising a nucleoside or nucleotide inhibitor of HCV NS5B polymerase.

30. The pharmaceutical composition according to claim 29, wherein said nucleoside or nucleotide inhibitor of HCV NS5B polymerase is selected from ribavirin, viramidine, levovirin, a L-nucleoside, or isatoribine.

31. A pharmaceutical composition comprising a compound as in claims 1-24, at least one nucleoside or nucleotide inhibitor of HCV NS5B polymerase, and at least one pharmaceutically acceptable carrier.

32. The pharmaceutical composition according to claim 31, further comprising an interferon, a pegylated interferon, ribavirin or combinations thereof.

33. The pharmaceutical composition of claim 31 or claim 32, wherein the compound is of the formula



34. The pharmaceutical composition of any one of claims 31-33, wherein the nucleoside or nucleotide inhibitor of HCV NS5B polymerase is sofosbuvir.

~~35. A compound as described in any of claims 1-24 or a pharmaceutically acceptable salt, or prodrug thereof for use in medical therapy.~~

36. Use of a compound as described in any one of claims 1-24 or a pharmaceutically acceptable salt, or prodrug thereof for preparing a medicament for treating hepatitis C or a hepatitis C associated disorder in an animal.

37. A compound as described in any of claims 1-24 or a pharmaceutically acceptable salt, or prodrug thereof for use in the prophylactic or therapeutic treatment of hepatitis C or a hepatitis C associated disorder.

38. The use of claim 36, wherein the medicament is to be administered with an interferon or pegylated interferon.

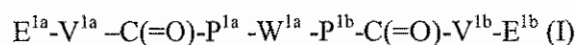
39. The use of claim 36 or 37, wherein the medicament is to be administered with ribavirin.

40. The compound of claim 37, wherein the compound is to be administered with an interferon or pegylated interferon.

41. The compound of claim 37 or 40, wherein the compound is to be administered with ribavirin.

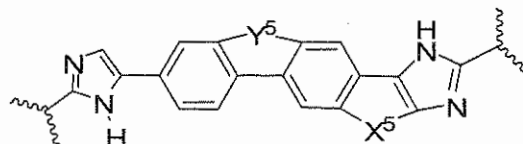
Claims

1. A compound of formula (I):



wherein

W^{1a} is



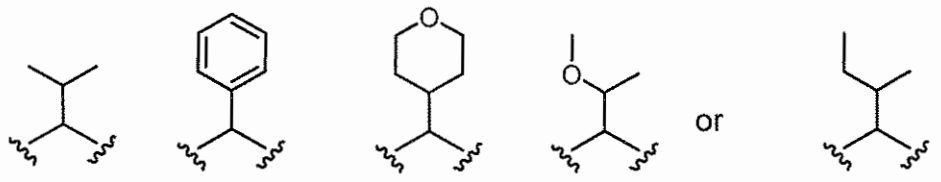
and W^{1a} is optionally substituted with one or more groups independently selected from halo, alkyl, haloalkyl, or cyano;

Y^5 is $-O-CH_2-$, or $-CH_2-O-$; X^5 is $-CH_2-CH_2-$ or $-CH=CH-$;

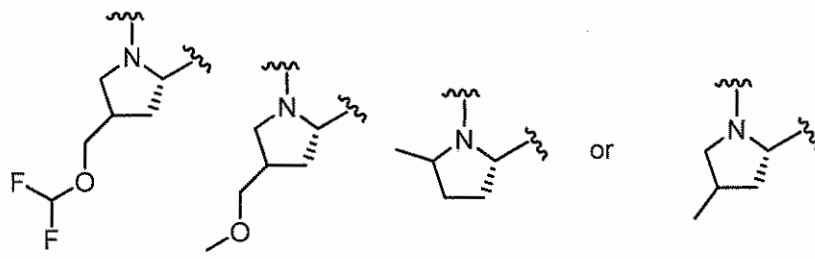
E^{1a} is $-N(H)(alkoxycarbonyl)$, $-N(H)(cycloalkylcarbonyl)$ or $-N(H)(cycloalkyloxycarbonyl)$; or $E^{1a}-V^{1a}$ taken together are R^{9a} ;

E^{1b} is $-N(H)(alkoxycarbonyl)$, $-N(H)(cycloalkylcarbonyl)$ or $-N(H)(cycloalkyloxycarbonyl)$; or $E^{1b}-V^{1b}$ taken together are R^{9b} ;

V^{1a} and V^{1b} are each independently selected from:



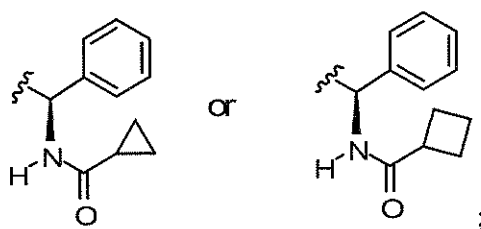
P^{1a} is selected from:



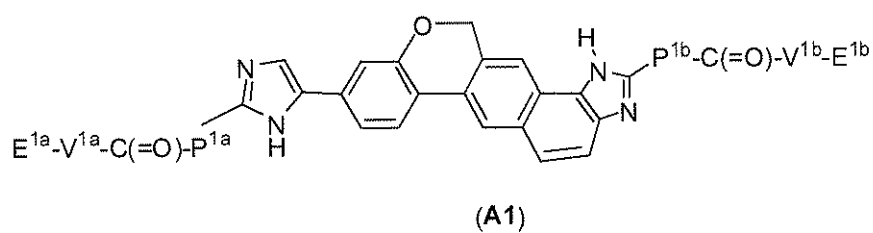
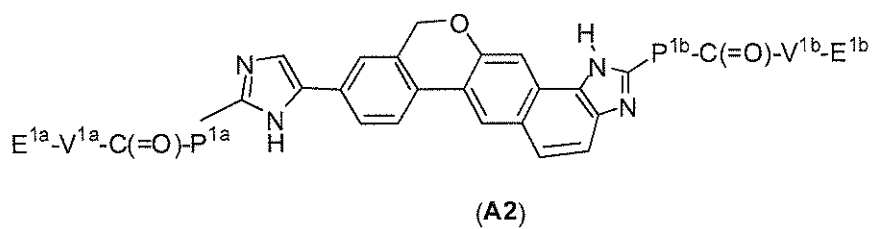
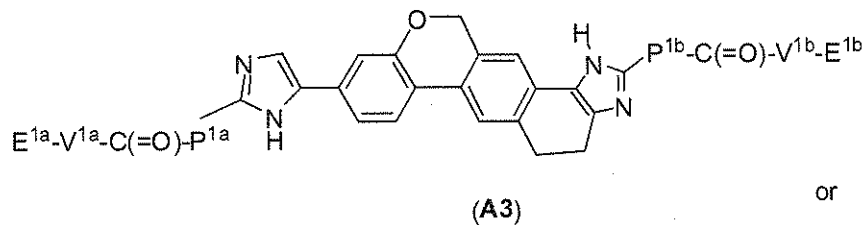
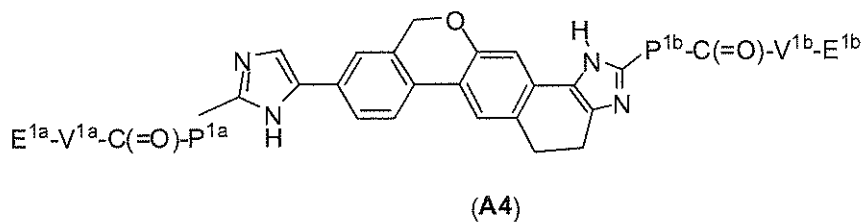
P^{1b} is selected from:



R^{9a} and R^{9b} are each independently:

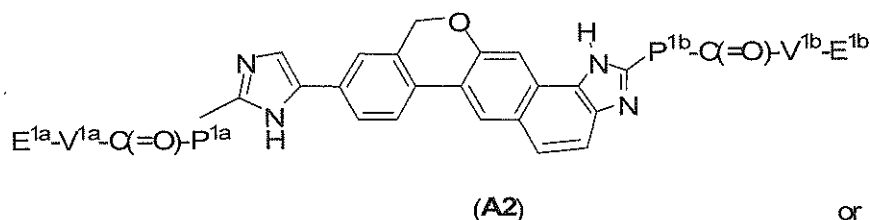
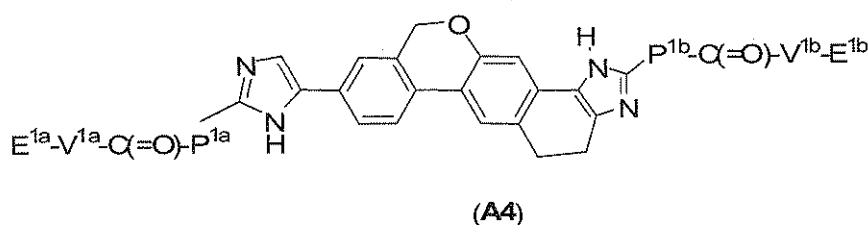


2. The compound of claim 1 which has formula:



wherein the imidazole ring shown in formula A1, A2, A3, and A4 is optionally substituted with one or more groups independently selected from halo, haloalkyl, cyano, and alkyl;
or a pharmaceutically acceptable salt thereof.

3. The compound of claim 1 which has formula:

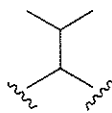


wherein the imidazole ring shown in formula A2 and A4 is optionally substituted with one or more groups independently selected from halo, haloalkyl, cyano, or alkyl;
or a pharmaceutically acceptable salt thereof.

4. The compound of any one of claims 1-3 wherein at least one of E^{1a} and E^{1b} is -N(H)(alkoxycarbonyl).
5. The compound of any one of claims 1-3 wherein at least one of E^{1a} and E^{1b} is -N(H)C(=O)OCH₃.
6. The compound of any one of claims 1-3 wherein both of E^{1a} and E^{1b} are -N(H)C(=O)OCH₃.
7. The compound of any one of claims 1-3 wherein at least one of E^{1a} and E^{1b} is -N(H)(cycloalkylcarbonyl) or -N(H)(cycloalkyloxycarbonyl).
8. The compound of any one of claims 1-3 wherein at least one of E^{1a} and E^{1b} is cyclopropylcarbonylamino, cyclobutylcarbonylamino, cyclopropyloxycarbonylamino or cyclobutyloxycarbonylamino.

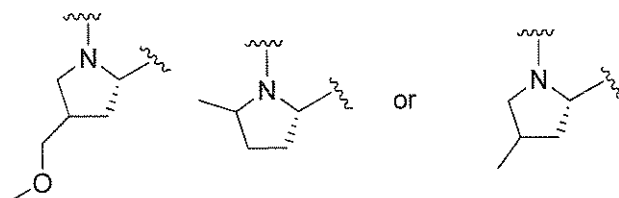
9. The compound of any one of claims 1-3 wherein E^{1a} and E^{1b} are each independently selected from cyclopropylcarbonylamino, cyclobutylcarbonylamino, cyclopropyloxycarbonylamino or methoxycarbonylamino.

10. The compound of any one of claims 1-9 wherein at least one of V^{1a} and V^{1b} is:

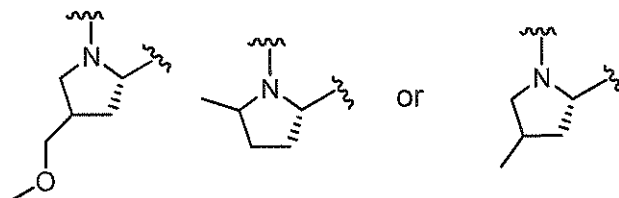


11. The compound of any one of claims 1-10 wherein E^{1a} - V^{1a} taken together are R^{9a} or wherein E^{1b} - V^{1b} taken together are R^{9b} .

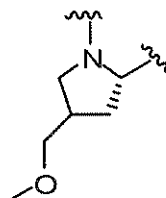
12. The compound of any one of claims 1-11 wherein at least one of P^{1a} and P^{1b} is selected from:



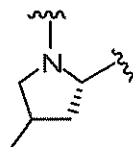
13. The compound of any one of claims 1-11 wherein P^{1a} and P^{1b} are each independently selected from:



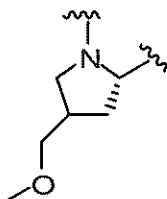
14. The compound of any one of claims 1-11 wherein one of P^{1a} and P^{1b} is:



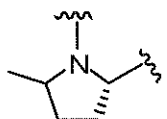
and the other of P^{1a} and P^{1b} is:



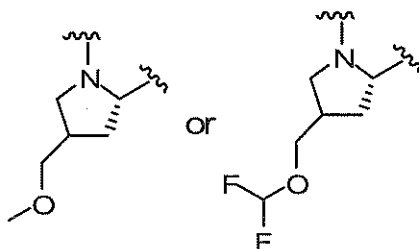
15. The compound of any one of claims 1-11 wherein one of P^{1a} and P^{1b} is:



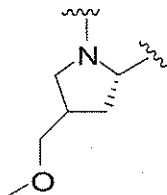
and the other of P^{1a} and P^{1b} is:



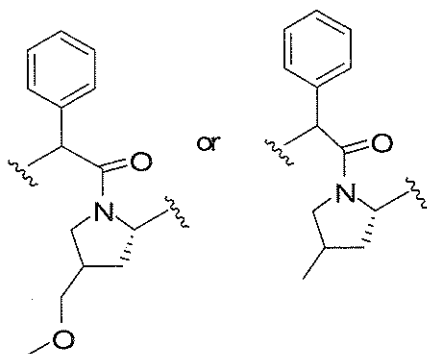
16. The compound of any one of claims 1-11 wherein at least one of P^{1a} and P^{1b} is:



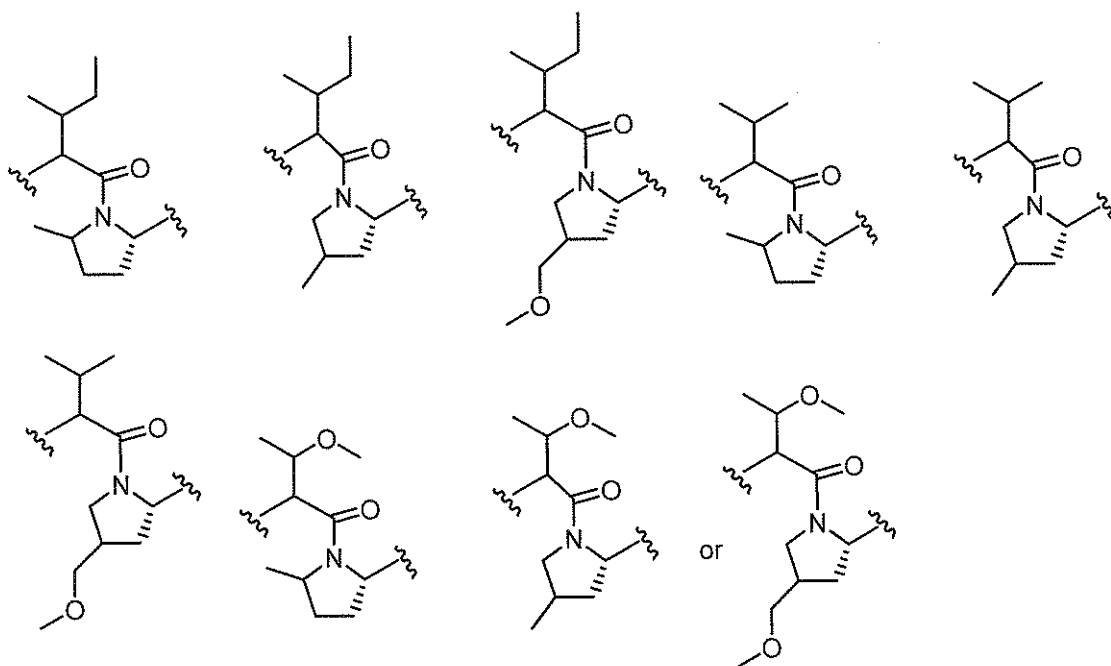
17. The compound of any one of claims 1-11 wherein at least one of P^{1a} and P^{1b} is:



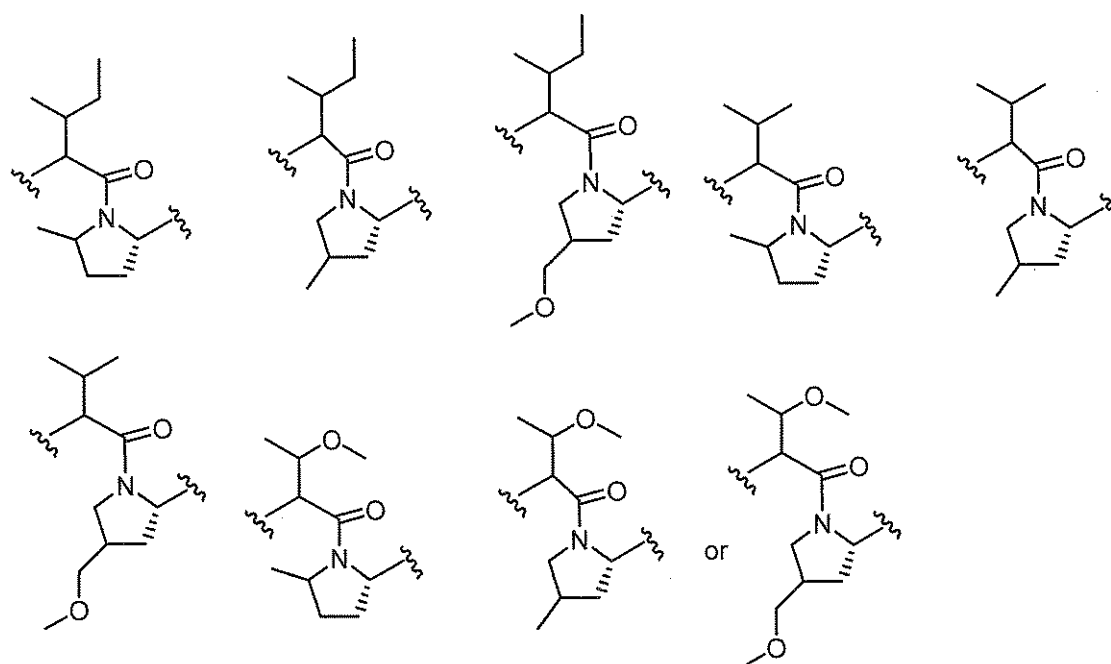
18. The compound of any one of claims 1-3 wherein at least one of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ is:



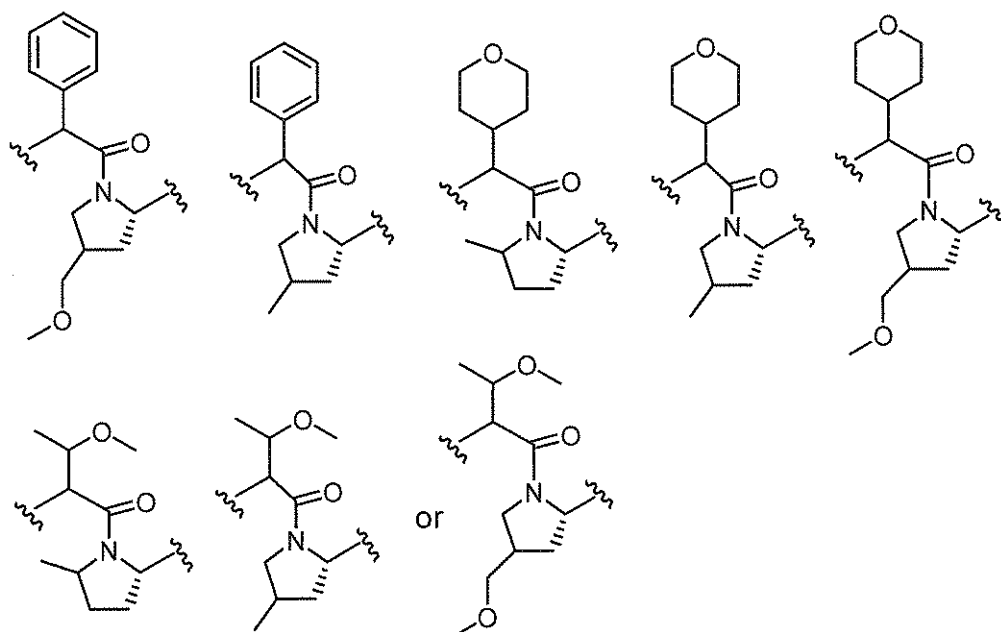
19. The compound of any one of claims 1-3 wherein at least one of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ is:



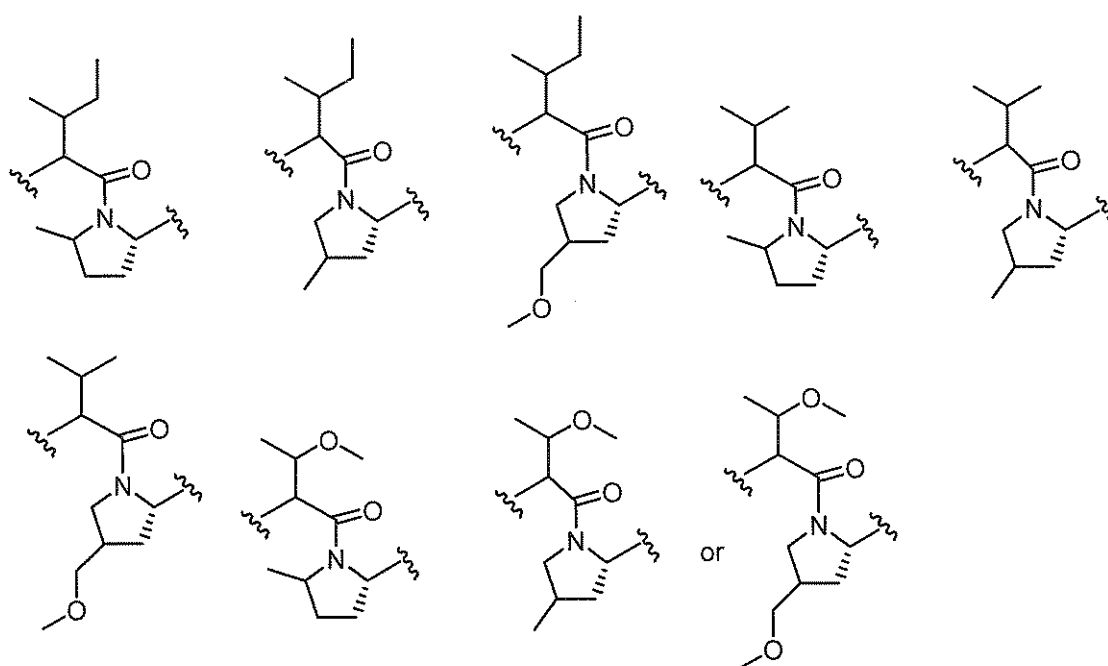
20. The compound of any one of claims 1-3 wherein both of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ are independently selected from:



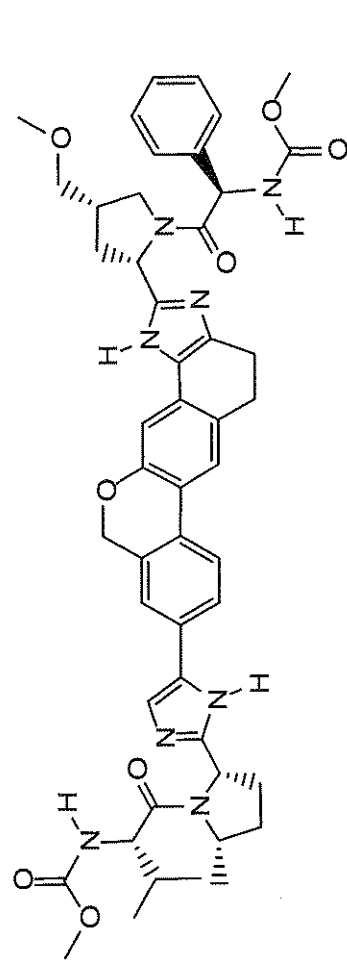
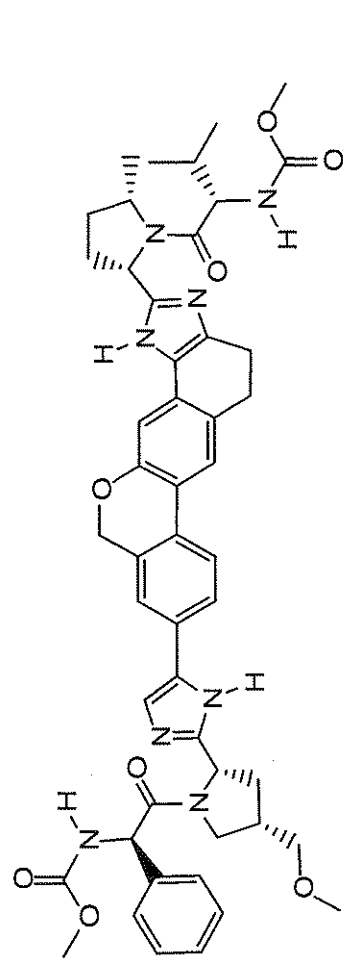
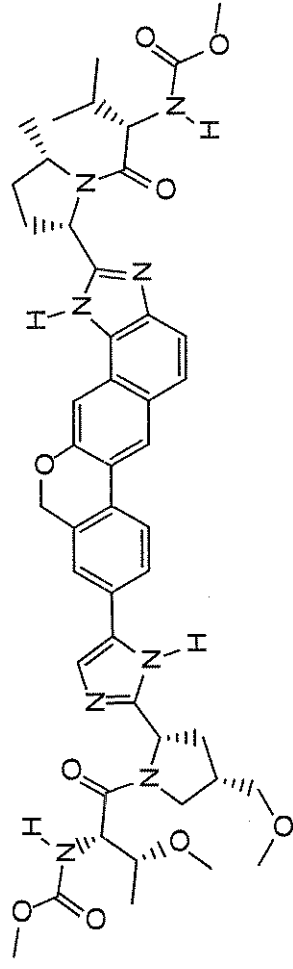
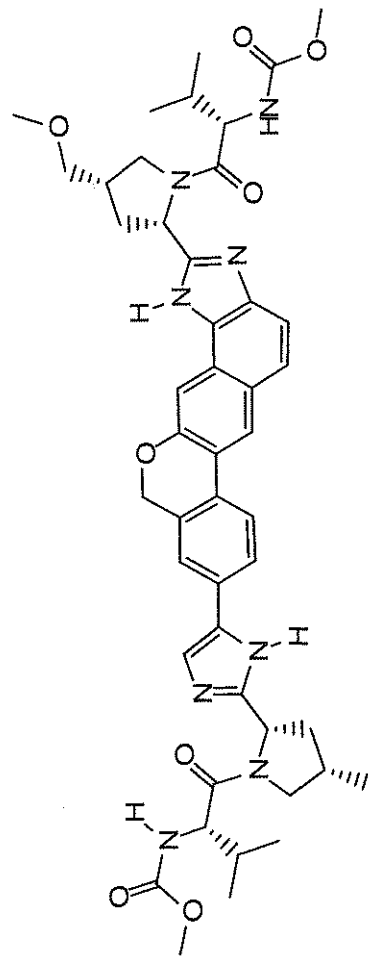
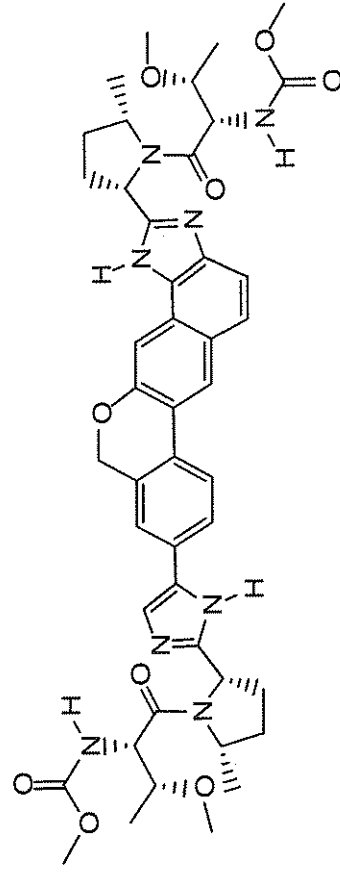
21. The compound of any one of claims 1-3 wherein one of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ is:

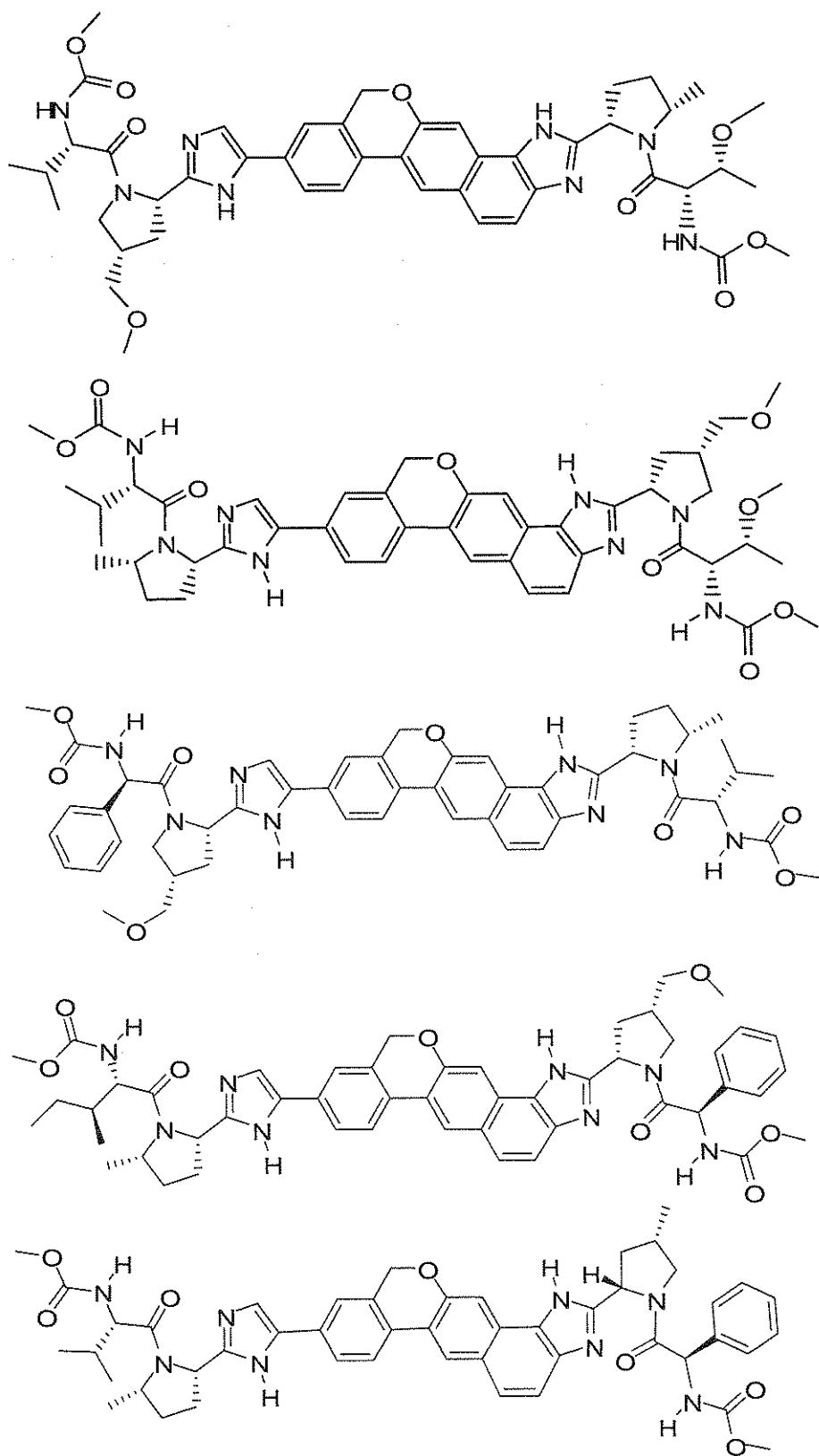


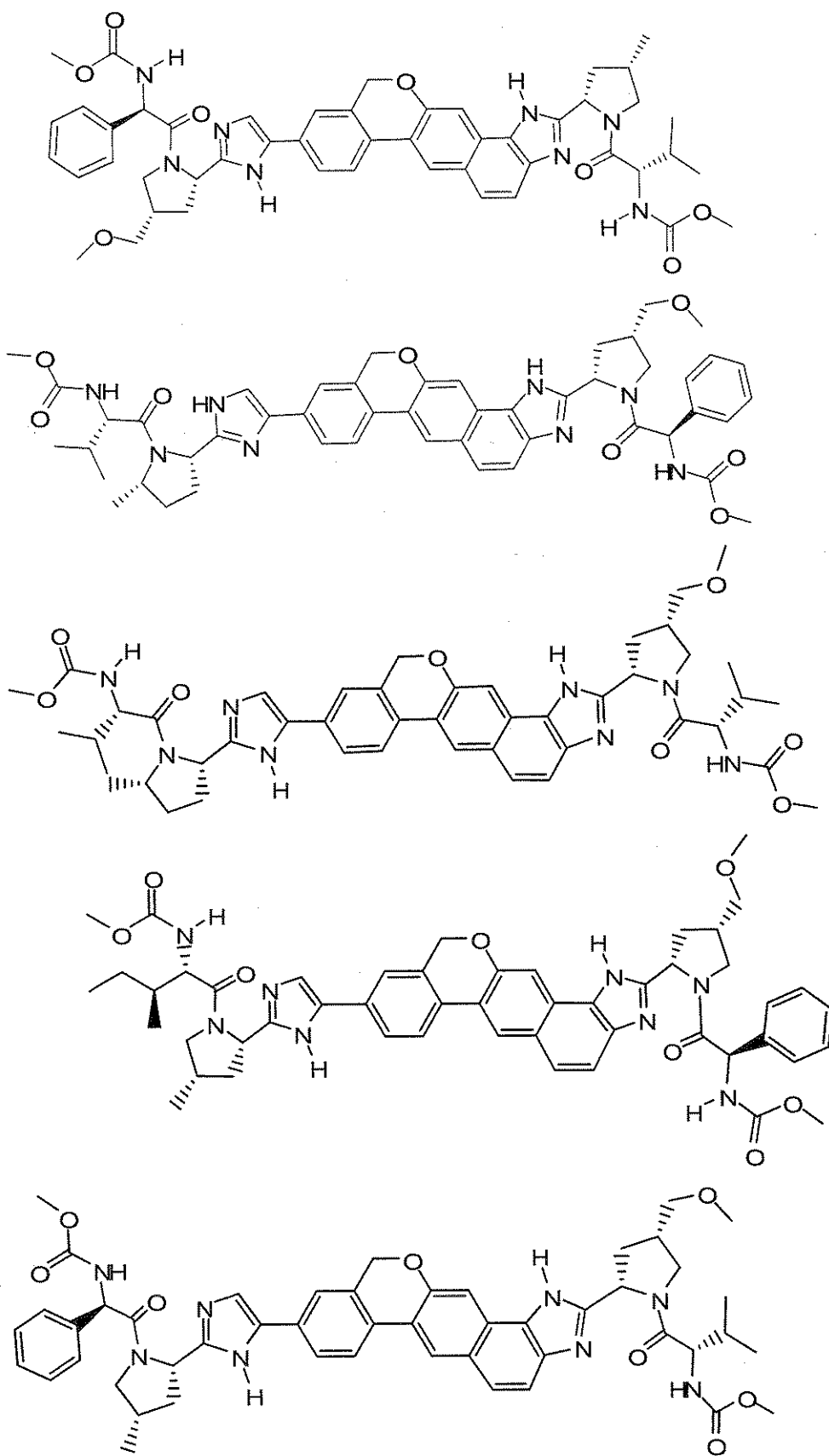
and the other of $-V^{1a}-C(=O)-P^{1a}-$ and $-P^{1b}-C(=O)-V^{1b}-$ is:



22. The compound of claim 1 which is a compound of formula:





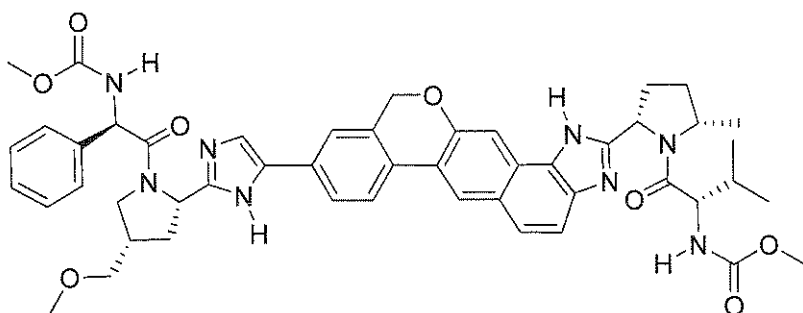


or

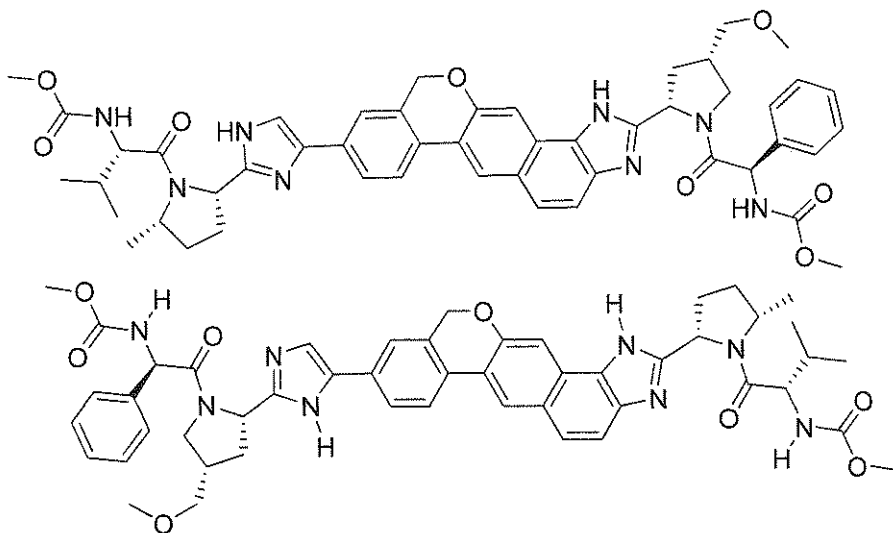


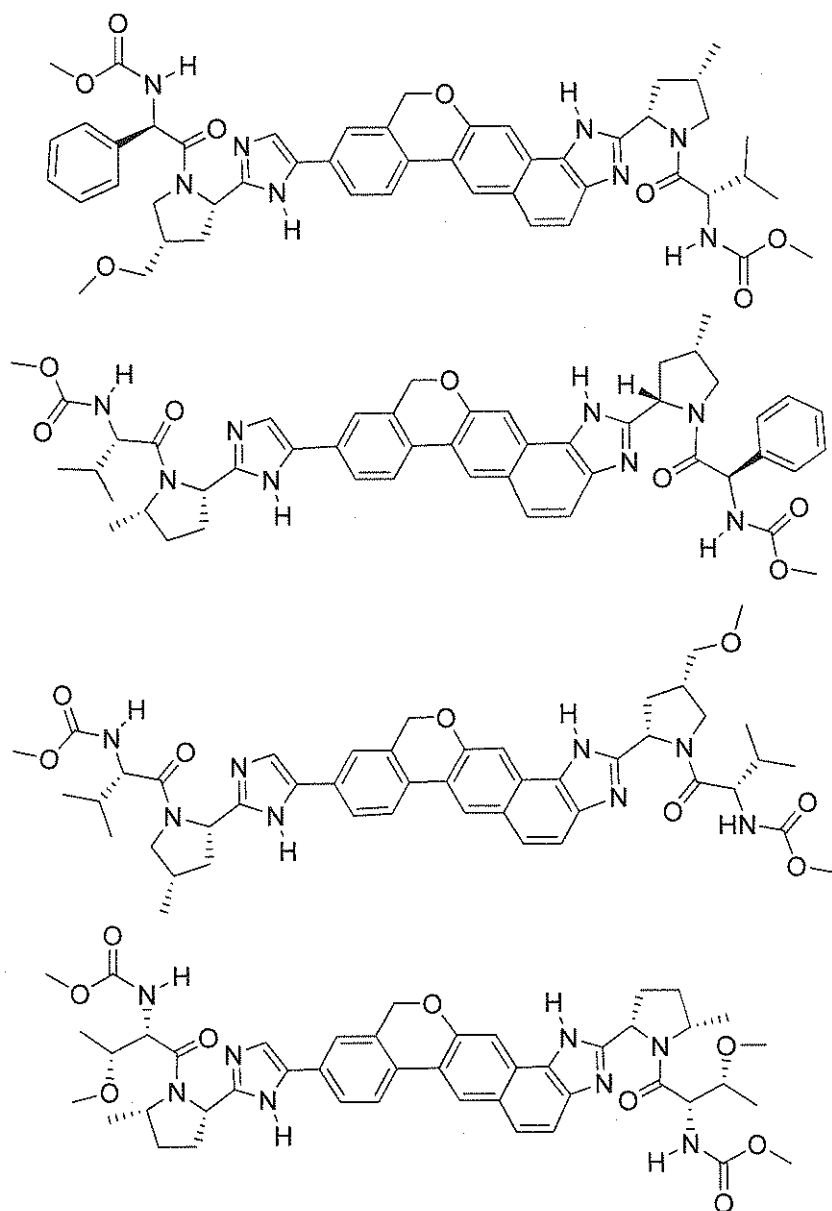
Chemical structure of a complex molecule, likely a derivative of a fluorene-based compound. The structure features a central fluorene core substituted with a 1H-imidazole ring. The imidazole ring is further substituted with a 1-methoxy-2-methyl-4-(2-methyl-2-oxo-1,3-dioxol-5-yl)pyrrolidine-1-carboxamide group. The fluorene core is also substituted with a 1-methoxy-2-methyl-4-(2-methyl-2-oxo-1,3-dioxol-5-yl)pyrrolidine-1-carboxamide group. The molecule is shown in a perspective view with stereochemistry indicated by wedges and dashes.

23. A compound of formula:



24. The compound of claim 1 which is a compound of formula:





or a pharmaceutically acceptable salt thereof.

25. A pharmaceutical composition comprising the compound as described in any of claims 1-24 or a pharmaceutically acceptable salt thereof; and at least one pharmaceutically acceptable carrier.

26. The pharmaceutical composition according to claim 25 for use in treating disorders of hepatitis C (HCV).

27. The pharmaceutical composition of claim 25, further comprising at least one additional therapeutic agent for treating HCV.

28. The pharmaceutical composition of claim 27, wherein said additional therapeutic agent is selected from ribavirin, an NS3 protease inhibitor, a nucleoside or nucleotide inhibitor of HCV NS5B polymerase, an alpha-glucosidase 1 inhibitor, a hepatoprotectant, a non-nucleoside inhibitor of HCV polymerase, or combinations thereof.

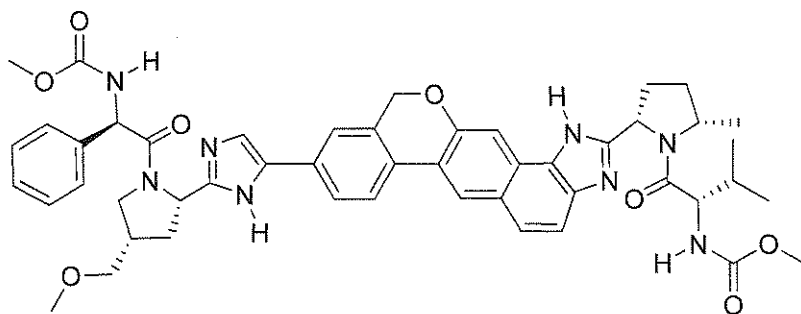
29. The pharmaceutical composition according to claim 25, further comprising a nucleoside or nucleotide inhibitor of HCV NS5B polymerase.

30. The pharmaceutical composition according to claim 29, wherein said nucleoside or nucleotide inhibitor of HCV NS5B polymerase is selected from ribavirin, viramidine, levovirin, a L-nucleoside, or isatoribine.

31. A pharmaceutical composition comprising a compound as in claims 1-24, at least one nucleoside or nucleotide inhibitor of HCV NS5B polymerase, and at least one pharmaceutically acceptable carrier.

32. The pharmaceutical composition according to claim 31, further comprising an interferon, a pegylated interferon, ribavirin or combinations thereof.

33. The pharmaceutical composition of claim 31 or claim 32, wherein the compound is of the formula



34. The pharmaceutical composition of any one of claims 31-33, wherein the nucleoside or nucleotide inhibitor of HCV NS5B polymerase is sofosbuvir.

35. A compound as described in any of claims 1-24 or a pharmaceutically acceptable salt thereof for use in medical therapy.

36. Use of a compound as described in any one of claims 1-24 or a pharmaceutically acceptable salt thereof for preparing a medicament for treating hepatitis C or a hepatitis C associated disorder in an animal.

37. A compound as described in any of claims 1-24 or a pharmaceutically acceptable salt thereof for use in the prophylactic or therapeutic treatment of hepatitis C or a hepatitis C associated disorder.

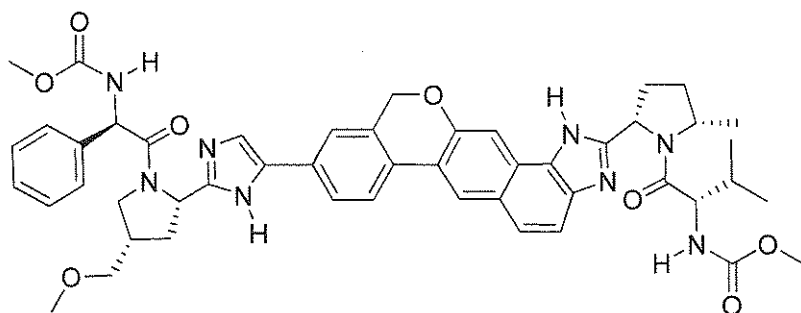
38. The use of claim 36, wherein the medicament is to be administered with an interferon or pegylated interferon.

39. The use of claim 36 or 37, wherein the medicament is to be administered with ribavirin.

40. The compound of claim 37, wherein the compound is to be administered with an interferon or pegylated interferon.

41. The compound of claim 37 or 40, wherein the compound is to be administered with an ribavirin.

42. A compound of formula:



43. A pharmaceutical composition comprising the compound of claim 42 and a pharmaceutically acceptable carrier.

44. The pharmaceutical composition of claim 43, further comprising a NS5B polymerase inhibitor.

45. The pharmaceutical composition of claim 43, further comprising sofosbuvir.

46. Use of a compound of claim 42 for preparing a medicament for treating hepatitis C or a hepatitis C associated disorder.

47. A compound as described in claim 42 for use in the prophylactic or therapeutic treatment of hepatitis C or a hepatitis C associated disorder.